REPORT

IMPERIAL MYCOLOGICAL INSTITUTE
2 NOV

ON THE

DEPARTMENT OF AGRICULTURE

ST. LUCIA,

1943.

[**Price Sixpence.**]

St. Lucia.
Printed by the Government Printer at the Government Printing Office,
1944.

REVISED PRICES OF NURSERY PLANTS AND SUPPLIES.

1. The prices of plants do not include the cost of the box or package, for which a charge will be made if not returned to the Department. The cost of delivery will, as far as possible, be included in the prices, but it must be understood that this is a matter entirely in the discretion of the Agricultural Superintendent.

2. All prices specified are for plants of standard quality. The prices of plants not included in this list will be fixed by the Agricultural Superintendent.

3. An addition of 100 per cent. is made on the price of all plants supplied for export from the Colony.

4. No plants are supplied on public holidays.

5. At least six months previous notice must be given when large numbers of such plants as bananas, coconuts, coffee, cacao, nutmegs, citrus, cane plants, &c., are required. All such orders should be in writing, and verbal or telephone messages should be confirmed in writing. In default of this rule such orders may not be attended to.

6. All orders will be supplied subject to the discretion of the Agricultural Superintendent and no responsibility is taken in regard to quality or quantity of plants after despatch from the Nurseries.

7. Complaints as to the quality or quantity of plants, &c., supplied, or as to the prices charged, should be made in writing to the Agricultural Superintendent at the time of delivery.

ALL PLANTING MATERIAL MUST BE PAID FOR BEFORE DELIVERY.

I. PLANTS.

	s.	*d.*	
Banana Plants (sections or suckers)			1 per plant (delivered at Quilesse Nursery)*
Oranges Budded			4 per plant.
Oranges Sour			6 per hundred.
Grapefruit Budded			4 per plant.
Lime Plants Budded/Grafted			4 per plant.
Mangoes Budded/Grafted			6 to 1*s.* per plant.
Coffee Plants	1	0	to 2*s.* per hundred.
Cacao Budded			6 per plant.
Nutmegs Grafted			6 per plant.
Avocado Pears			2 to 3*d.* per plant.
Avocado Grafted			6 per plant.
Cane Plants	1	0	per hundred (delivered at Nursery)
Pineapple Plants			1 to 3*d.* per plant.
Casuarina	2	0	per hundred.
Casuarina (in pots)			2 each.
Palms (various)			3 per plant.
Ornamental Plants (various)			2 to 1*s.* per plant.
Seeds (various)			2 and 3*d.* per packet.
Plants for windbreaks, hedges, &c., other than the above mentioned	2	0	per hundred.
Plants for windbreaks, hedges, &c., other than the above mentioned (in pots)			2 each.
Fodder Plants	1	0	to 2*s.* per hundred (delivered at Nursery)
Cover Crops and Green Manures			2 per lb.
Grass	1	0	per sugar bag.

* Transport charges from Quilesse to Mahaut to point of delivery are extra.

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SAINT LUCIA

Report of the Department of Agriculture for the year ended December 31st, 1943.

AGRICULTURE IN THE COLONY.

General Situation.

1. The virtual completion of work on the United States Bases tended to restore conditions to a more normal level; in particular peasant agricultural activity was much in evidence, and estate agriculture generally benefited by the increased labour supply.

2. The inland transport service was seriously curtailed during the period June to September owing to the acute shortage of tyres, and hardly was this restored when the important leeward coast motor launch service was dislocated by the loss of M. V. "Bernadin II" (one of the two launches plying daily) in a severe storm. The other motor launch operated a very erratic service owing to mechanical defects and replacement difficulties.

Weather Conditions.

3. Comparatively dry, fine weather tempered by fairly regular trade winds characterised the first half of the year, but the period July to October was exceptionally humid and sultry; November and December were fairly cool. Heavy thunderstorms occurred during August and October, and a severe storm swept the Island on the morning of October 11th, reaching gale force in the South (a wind velocity of 75 miles per hour was reported to have been recorded at the Vieux-Fort Base at 11 a.m.): another storm is believed to have passed the eastern side of the Island during the early hours of August 20th. Considerable losses were caused to tall crops such as bananas, but orchard crops suffered only slight damage; property was damaged principally in the Vieux-Fort area, where flooding also occurred. Roads were not affected. The coastal launch M.V. "Bernadin" was swept off her course and ultimately lost, but the 18 passengers on board were saved after drifting for nine days. Rainfall distribution was normal, closely following the 54 year average, 1890–1943, except for the months of August and October when heavier rains than usual fell, especially in August. Generally speaking weather conditions were favourable to the production of the staple food crops.

GENERAL CONDITIONS AND PROGRESS IN THE CHIEF INDUSTRIES.

Sugar.

4. Yields of cane were fairly good despite limited cultivation and manuring last season, but juice content was disappointing, possibly on account of the shorter growing period and intermittent light rains immediately prior to and during reaping of the crop. Due to uncertain labour conditions one estate commenced reaping earlier than usual. Production amounted to 6,629·55 tons of sugar. A total of 62,430·4 tons of cane was

ground by the three factories, as compared with 86,520·2 tons of cane ground and 8,780 tons of sugar produced in 1942.* The average extraction ratio was 1 ton of sugar from 9·61 tons of cane. Labour was barely adequate during crop to keep the factories working without interruption, thus the usual cultural operations again had to be delayed until reaping was completed, which, together with restrictions imposing only limited applications of fertilizer, will doubtless be reflected in the following crop. Two estates have decided to cease Spring planting of cane in future, and to increase their ratoon period from 5 to 6 years.

5. The area under sugar cane for the 1943 crop totalled 2,031 acres, 83% of which was still in the variety B.H. 10/12, but by the end of the year fairly large areas of B. 34104 and B. 37161 had been planted, and these varieties will soon be dominant.

Molasses and Rum.

6. The quantity of molasses produced was 236,000 gallons (310,200 gallons in 1942): shipping restrictions precluded any exports, the entire production being converted into rum for local consumption, except for a small quantity used as stock feed.

7. The Roseau Sugar Factory purchased the Vieux-Fort Factory's rum still, thus each of the three sugar estates now have their own rum distillery.

8. The manufacture of fancy molasses has been discontinued, and the two small estates concerned are raising livestock and other produce of local value.

9. Production and export of sugar manufactures for the year are shown below :—

Product.	Produced.	Exported.	Value. £
Sugar ...	6,629.55 tons	6,115 tons	67,244
Molasses ...	236,000 gals.	—	—
Rum ...	55,996 ,,	—	—

Coconuts.

10. Favoured by improved marketing opportunities and normal weather conditions, the industry experienced a record year both in value and in the amount of copra produced. Several enquiries were received from the United States of America and Canada for coconuts, but no shipping facilities were available, thus apart from small shipments of nuts to Barbados the entire crop was manufactured into copra. Labour was fairly plentiful and little wastage of nuts occurred.

11. The Malayan-type copra drier is playing a very important part in the increased production of copra, and although it does not yet seem possible to obtain a sufficiently dry copra in the number of firings recommended under Malayan conditions, nevertheless the result is a product of good quality. There is reason to hope that further experience will lead to more efficient working, although some estates have not followed the original plans in sufficient detail. Some 24 Malayan driers are believed to have been erected to date. Sun-drying of copra is being continued on a small scale, and a few estates are still using locally constructed oven driers.

* 1942 figures include Vieux-Fort which is no longer a producing centre.

12. Owing to manufacturing and, to a lesser extent, shipping difficulties, the contract with the Trinidad Coconut Growers' Association could no longer be operated satisfactorily, and it was finally closed at the end of the year. As the Trinidad Factory was unable to absorb our copra, short term contracts were made during the year with the Barbados Cotton Co-operative Factory at an f.o.b. price of £28 0 0 per ton for Grade A and £25 13 4 per ton for Grade B. A further 6 months' contract has been arranged with the Barbados Factory from 1st January. Small shipments of copra were also made to Martinique. Following complaints against parts of the initial shipments, the local Association in June commenced the inspection of all copra received to ensure that it complied with the Barbados contract, and where necessary individual marks were regraded or rejected. In this way a significant improvement has been gradually achieved in St. Lucia copra.

13. 9,270 Imperial gallons of coconut oil were imported by the St. Lucia Coconut Growers' Association during 1943 and sold to retailers; in addition about 20 tons of coconut meal were imported and sold to local stock owners. Local oil production has increased slightly, two local plants purchased 144 tons copra from which 14,491 Imperial gallons of oil and 50 tons of coconut meal were obtained for local use. A number of peasants, also, are believed to be making their own oil requirements by primitive methods. The small soap factory manufactured 68,800 lb of laundry soap during 1943 from local oil.

14. New areas of coconuts are coming into bearing, but the total area under coconuts is estimated at 4,600 acres.

15. The export of coconuts and copra during 1943 was as follows:—

Coconuts	541,170	nuts valued at	£1,508
Copra	1,067.8	tons (2,391,895 lb.) valued at	23,967
		Total value	£25,475

Limes.

16. This industry is passing through a rehabilitation phase, where old seedling plantings, with few exceptions, are in a steadily declining condition, and a comparatively large amount of new planting (principally with budded plants) has been done in recent years; thus it may be some time before production can be expected to regain past levels. Reference is made elsewhere in this Report to the considerable loss of seedling lime plants of varying age due to "Red-root" complex; the disease is confined to two estates in the northern districts.

17. Flowering was earlier in some areas, but a good average crop resulted on most estates. Apart from a small trade with Barbados, there were no shipping facilities for the export of green limes, and the bulk of the crop was allowed to ripen on the trees and converted into lime oil. Only very small shipments of settled and concentrated lime juice were possible, mainly to Barbados and Trinidad; this is reflected in the total export value for 1943. Export production for 1943, estimated in barrels of limes, amounted to 15,116½ barrels valued at £9,528 (1942—10,825 barrels valued at £9,256). The demand for distilled lime oil was strong, and the average price realised for sales through the West Indian Lime Oil Sales Coy., Trinidad, was 34*s.* 2*d.* per lb., c.i.f.

18. 2,518 lime plants (budded on wild Grapefruit stocks) were distributed from the Government nursery. It is a little early yet to determine the merits of wild Grapefruit as a lime stock, but young budded trees are growing satisfactorily to date.

19. Exports of lime products during the year were as follows:—

Green Limes	59	barrels.
Lime juice, settled	1,458	gallons.
„ „ concentrated ...	180	„
Lime Oils:		
Distilled	5,833	lb.
Handpressed	190	„

Cacao.

20. Heavy rains during November and December, 1942, particularly in the wetter areas, affected the 1942/43 crop, with a resultant decrease in production. The 1943/44 crop flowered early and a good crop is being picked from most areas, but in localities where the flowering and pod setting were spoilt by heavy July/August rains, a better carême crop is in prospect.

21. Exports during the year amounted to 3,254 cwt. (375,739 lb.) valued at £6,980 (1942—3,877 cwt. valued at £7,820). After considerable delay the bulk of the crop was marketed through the Commodity Prices Stabilization Corporation Ltd., Canada, and realised an f.o.b. price of approximately 52*s.* per cwt.; shipment of the 1942/43 crop to Canada was not completed until June. Local prices offering were 46*s.* 8*d.* per cwt. for estate cacao and 4½*d.* per lb. for ordinary cacao. Arrangements have already been completed for the sale of the 1943/44 crop to the same corporation on similar terms, thus the minimum of delay is anticipated in disposing of this crop.

MINOR AGRICULTURAL INDUSTRIES.

Fresh Fruit Trade.

22. Little scope existed for the export of fresh fruits, although full opportunity was taken of markets in some of the neighbouring islands, particularly Barbados, whenever shipping facilities occurred. There was a fairly good local demand for fresh fruit at reasonable prices, but this could not prevent wastage, particularly of seedling mangoes. A big mango crop was obtained and avocado pears, pine-apples, paw-paws and grapefruit were plentiful in season. At no time were bananas plentiful, and although the October storm caused considerable damage in exposed areas, the indications are that the Gros Michel banana industry has been virtually abandoned; it is impossible to estimate the area which remains under this crop, and the suggested total of 300 acres of neglected cultivations at the end of 1943 may well be optimistic.

23. Exports were 482 crates of mangoes, 38 crates of oranges and 25 crates of grapefruit valued at £84; 93 bunches of bananas valued at £7; 2,928 crates of miscellaneous fruits valued at £409 and 39,169 lb. of tamarinds valued at £246.

Vegetables and Ground Provisions.

24. Exports of vegetables and ground provisions were negligible, all production being absorbed locally.

25. With few exceptions the food production effort was well supported by all sections of the community, and as a result ample supplies of local foodstuffs were available throughout the year, although supplies to the Castries market were somewhat restricted during the period June to August, owing to transport difficulties through lack of tyres. A good breadfruit crop was obtained and little damage was caused to the principal food crops by the October storm. Fresh vegetable production has been well maintained by peasants, but greater production is necessary with a view to encouraging the consumption of these "protective" foods by a wider circle of people.

26. A maximum price has been fixed for the sale of all essential local foodstuffs, with the possible exception of fresh vegetables, the price of which has not been fixed in order to encourage greater production, but these prices have not always been rigidly adhered to either by the producer, middleman or consumer, and the law of supply and demand (with seasonal influence) has been the ruling factor.

Cotton.

27. Owing to shipping difficulties seed of the Montserrat strain of cotton could not be obtained, and seed was therefore obtained from St. Vincent. Some 16 acres of cotton were finally established for the 1942/43 crop. A total of 9,078 lb. seed cotton was purchased at the local ginnery from which 2,527 lb. lint were obtained; ginning outturn 23.3 per cent. Yield of lint was 158 lb. per acre. All lint was purchased by the British Government at brokers' valuation and realised 2*s.* 4*d.* per lb. f.o.b. Fortunately seed of the Montserrat strain of cotton was obtained (although it arrived two weeks late) for the 1943/44 crop, and about 25 acres have been established. Suitable arrangements have been made to secure an adequate supply of Montserrat seed in future years. Cotton exported during 1943 amounted to 2,387 lb. lint valued at £278.

Other Crops.

28. *Coffee.* There was a fairly good demand for local coffee and production is increasing. The price varied between 1*s.* to 1*s.* 3*d.* per lb. for Liberian. There is a strong demand for Excelsa coffee plants.

29. *Corn.* In common with other food crops, a considerable increase in the area under this crop was observed particularly in northern districts, and it is hoped that the present maximum price of 3*d.* per lb. will offer sufficient inducement to peasants to attempt to supply the heavy local demand for corn.

30. *Rice.* A welcome increase in rice planting occurred principally in the Vieux-Fort district; it is estimated that a total of nearly 200 acres was planted and yields were comparatively good.

31. *Tobacco.* Small areas were planted for local sale.

32. *Spices.* There was a slight increase in the value of these crops comprising principally nutmegs and mace, also vanilla, ginger, cinnamon and cloves, amounting to £515 (1942—£354). Efforts have been made to encourage greater interest in vanilla cultivation as an ideal peasant cash crop at present, but little interest has been shown in the crop so far.

Bee-Keeping.

33. Weather conditions were not as favourable as the previous season and a smaller honey crop was obtained, exports amounting to 64,916 lb. of honey valued at £1,163 (1942—111,155 lb. honey valued at £2,026); no beeswax was exported. About 79 per cent. of the total exports went to the United Kingdom and, apart from a small quantity to Barbados, the balance was exported to Trinidad. Local prices for honey averaged 16*s.* per tin (56 lb.).

Forest Products.

34. Following a further increase in the exports of charcoal and firewood to the Barbados market, the value of forest products exported was £8,589 (1942—£2,162). A total of 61,204 bags charcoal was exported, with evidence of a steadily rising trade in this commodity; an export quota will be necessary in 1944 if adequate protection is to be given to our not unlimited natural resources. Local timber was in great demand throughout the year and supplies were far from adequate; the average price of local 12″ × 1″ boarding remained at 4½*d.* per foot.

Fishing Industry.

35. Supplies of fresh fish were again inadequate throughout the year, and in spite of a constant demand at remunerative retail prices there was no noticeable increase in the fishing effort. Unfortunately, it seems unlikely that any qualified practical investigation into the local fishing industry will be possible for some time owing to the war.

Livestock.

36. Satisfactory progress continues to be made in the raising of livestock, and there is reason to believe that livestock keeping will find a permanent place in the future activities of an increasing number of peasant proprietors who are beginning to realise that stock are an asset rather than a necessary evil. The efforts of several estate owners, including the sugar estates, continue to be of great assistance in the development and expansion of the livestock industry, and the initiative they have displayed in meeting local problems has been a source of encouragement and example to peasant proprietors. In this connection, however, the growing larceny of stock of all kinds presents a serious threat to future progress, particularly amongst small stock keepers in the vicinity of towns and villages, and calls for stern measures.

37. Supplies of meat, poultry and eggs were limited throughout the year, and, apart from a seasonal increase in eggs, were again totally inadequate to meet the local demand. It will naturally take a few years to achieve a significant improvement in the meat situation. Controlled liveweight prices for stock at the end of the year were—cattle, 3—3¼*d.** per lb.; sheep, 3—3⅓*d.* per lb.; pigs, 3¼—3¾*d.* per lb.; goats, 2½—3*d.* per lb. poultry (excluding capons) 10*d.* per lb., but owing to the limited weighing facilities purchase prices doubtless often averaged higher than these rates: controlled retail prices for meat were—beef, 8—9*d.* per lb.; mutton, 9—10*d.* per lb.; pork, 8—9*d.* per lb.

38. To further encourage the production and distribution of milk under hygienic methods a premium of ½*d.* per wine pint was granted to approved dairymen jointly recommended by the Medical and Agricultural Departments. Only two dairymen have so far qualified for this premium. Milk is now being distributed in standard capped bottles by three Castries dairies. Unfortunately the adulteration of milk is still widely practised by numerous peasant suppliers, but it is hoped to overcome this practice in time.

39. Two estate owners with domestic refrigerators have lately commenced the manufacture of hams and bacon on a small scale with good results, but more experience is required. One estate owner is expecting a small ice-making and cold storage plant from America in the near future, and when this is operating he intends to increase his output of hams and bacon.

40. The legislation prohibiting the slaughter of female cattle was timely, and has been of great value in protecting our depleted cattle population; 65 permits were issued for the slaughter of aged or barren female cattle.

41. No outbreaks of Swine Fever are believed to have occurred during the year. Peasants' pigs are beginning to appear in numbers again in most districts, but they are being allowed free range. 43 pigs belonging to peasants were inoculated by the Department and approximately 316 pigs belonging to estate owners, several of whom now do their own inoculation.

42. Poultry keepers are being encouraged to caponise all cockerels not required for breeding. Demonstrations of caponising were given by the Department from time to time, and some 12 caponising sets were imported for use.

* The higher figure in each case applies to the towns and one mile radius thereof, and the principal villages; the lower figure applies to all other places in the Colony.

43. A useful selection of minerals, medicines, &c., are now stocked by the Department for sale to local agriculturists at reasonable price.

44. Exports of stock were restricted to the following :—

	1943.	
	Quantity.	*Value.*
Mules	3	£29

45. Thanks to the kind co-operation of the Department of Agriculture, Barbados, a large number of improved poultry and other livestock were imported, which have proved of great help in developing the livestock industry.

Animal Inspection Service.

46. Animal importations into the Colony were as follows :—

Poultry ...	255
Rabbits ...	34
Sheep ...	8
Goats ...	7
Cattle ...	6
Dogs ...	5
Horse ...	1
Pigs ...	2
Guinea Pigs. ...	2

Ten (10) export certificates were issued for animals leaving the Colony.

Soil and Forest Conservation.

(a) *Land Allocation.*

47. It may be of general interest to record that recent investigation has disclosed the following sub-division of the total land area of the Colony :—

(i) Peasant ownership ...	37,390* acres	(approximately)
(ii) Estate ownership ...	100,000 ,,	(do.)
(iii) Crown Land ...	14,930 ,,	(approximately at the end of 1942)
Total ...	152,320 acres	

These figures should serve to indicate that, at most, there can only be a very limited area of Crown Land remaining for agricultural purposes, which would only be determined when the Land Allocation Policy has been prepared in collaboration with the forestry advisor.

48. Careful consideration of this position should also serve to demonstrate why it is imperative that all land owners, large and small, should strive to adopt a more permanent and progressive system in the use of their land. A spirit of trusteeship should pervade land ownership, otherwise posterity is likely to have a very raw deal.

(b) *Soil Conservation.*

49. No new soil conservation work was carried out, but such work as has been previously done, in particular the relatively large-scale conservation measures carried out by the sugar company mentioned in my report for 1941, has been satisfactorily maintained; while unable to continue their programme of conservation work last year again, there is every intention of resuming work in 1943. Lack of field staff and, during the year under review, greatly restricted transport facilities combined to frustrate any progress that might have been achieved amongst peasant proprietors.

* This figure does not include dismemberments which are known to have been made from private estates, and of which no reliable data is available at present.

50. The Department has not been able to commence work on the 35 acres of land at the Morne Giraud Demonstration Centre yet, but it is hoped to make a start in 1944. Meanwhile, the acre demonstration plot commenced in 1940 has completed another year of useful demonstration in soil conservation methods, combining good yields of yams, potatoes, legumes and fodder with these methods. The Allotment Scheme at Canaries (28 one acre plots) has been well supported by the villagers and records another year of good crop production combined with soil conservation.

51. Measurements of the dry season flow of the Union River were taken again from 21st February to 24th June; the average daily flow during this period was approximately 500 gallons per minute.

(c) *Forest Conservation.*

52. Mr. J. S Beard, M.A., B.Sc., Assistant Conservator of Forests, Lesser Antilles Division, paid his first visit to the Colony from 7th December to 21st December. During his stay he made a thorough inspection of representative parts of our forest areas accompanied by the Agricultural Superintendent or Agricultural Assistant. He also addressed a special meeting of members of Executive and Legislative Councils and the Board of Agriculture. His report is awaited with interest.

53. Two forest patrols are permanently employed in preventing trespass and forest offences in the Crown forest areas and, with the active co-operation of the Crown Lands Overseer, numerous prosecutions were made for forest offences. There is a marked improvement in the control now exercised over Crown Lands areas, but the tradition behind squatting and trespass dies hard.

54. Only small scale reafforestation in the Quilesse area was possible, due to the lack of adequate supervision and limited funds. Some 3,742 trees (mainly Laurier mabre and Honduras mahogany) were planted, and 428 trees replanted, chiefly in the selected tenants gardens in the Quilesse area. More rapid progress in this and other forestry work is envisaged if the additional staff recommended by Mr. Beard are approved.

55. Unfortunately no work has been possible, owing to a lack of surveyors, under the Development & Welfare Scheme which provides for the proper survey and escheat of all vacant lands in the Colony.

56. Timber cutting on the dry, exposed and eroded hillsides of the Northern, Windward and Southern districts continues regardless of conservation measures, activated by the apparently insatiable demand for charcoal and fuel at attractive prices (in Castries the price per cord of wood varied from 16*s*. 8*d*. to 20*s* 10*d*., and charcoal 2*s*. 6*d*. per bag).

IMPORTATION OF FOODSTUFFS.

57. Although the total value of imported foodstuffs shows a slight increase over 1942, this is mainly due to price increase and not to any material increase in quantity. Doubtless more importations of foodstuffs, preserved fish and meats in particular, would have resulted with normal shipping facilities and the absence of any restrictions from the exporting countries.

58 Conditions continued to exert a favourable influence in the regular and better use of local foodstuffs, and it is hoped that this will gradually develop a more practical and permanent desire for the increased production and use of local foodstuffs. In this connection it is unfortunate that increased importations of peas, beans and coffee should have occurred during 1943.

WORK IN THE DEPARTMENT OF AGRICULTURE.

Plant and Seed Introduction, etc.

59. Introduction of planting material during the year comprised 3 lb. and 18 packets of seed and 54 cuttings comprising 8 new sugar-cane varieties; in addition, every effort was made to maintain supplies of vegetable seeds for local sale at a satisfactory level.

Details of the more important introductions are as follows:—

Lima Bean—Illinois large Podded	3 packets	United States of America
Plentiful Bean	1 packet	do.
Erythrina berteroana	1 lb.	Puerto Rico
Papaw, "Solo" variety	1 packet	Amani Institute
Spinach—Chooka Bhaji	1 ,,	do.
Runner Bean—Epicure	1 ,,	do.
Chinese Cabbage (2 varieties)	2 packets	do.
Boer Pumpkin	2 ,,	do.
Pumpkin—Large Oval	1 packet	do.
Bush Lima Bean—Fordhook	1 lb.	Barbados
Madagascar Butter Bean	1 ,,	Tanganyika
Lignum Vitae	1 packet	Trinidad
Eucalyptus Deglupta	1 ,,	Imperial College of Tropical Agriculture
Mauritius Pea	1 ,,	Amani Institute
Bean, "Six Weeks"	1 ,,	Antigua
Sugar-cane—8 varieties	54 cuttings	Plant Quarantine Station, Trinidad
Luffa, commercial type from Cuba	1 packet	Department of Agriculture, Trinidad

60. The Plant Inspection Service dealt with a total of 11 importations exclusive of those mentioned above; all but one were admitted. Ten certificates of inspection were furnished for planting material leaving the Colony. The Fumigatorium on the wharfside proved of great value for the routine fumigation of stored animal feeds.

61. The distribution of planting material from the Department's Plant Nurseries during 1943 is shown below:—

	Plants.	*Cuttings.*	*Seeds.*	*Truck Loads.*
Budded Lime ...	2,518	...	...	...
Other citrus* ...	3,168	...	...	...
Cacao, coffee and spices ...	9,664	4	...	...
Fodder and pasture plants and grasses ...	6,602	21,350	2 ozs.	16
Cane	...	2,750	...	...
Economic and food crops ...	3,547	8,689	23½ lb.	...
Timber and economic trees	6,460	...	...	...
Ornamentals ...	1,060	100	...	1
Miscellaneous ...	10	...	...	...

Work at the Union Agricultural Station.

62. As in the previous year attention was mainly directed towards the maintenance of seed supplies and the production of planting material as part of the local Food Production Campaign; observations on the main crops follow:—

* Includes 1,250 Sour Orange seedlings and 200 wild Grapefruit seedlings for nursery work.

63. *Yams*: After considering the 1942 results it was decided to concentrate on three main varieties for future work; an area of approximately two-fifths of an acre was planted, Growth was excellent, the average per acre yields being as follows: Chinese or Potato yam 16·9 tons; Lisbon (ordinary) 13·8 tons; Lisbon (bottle-neck) 25·1 tons; "Piquant" 18·2 tons, of which the first crop in September comprised 55%, the second crop in December making up the remaining 45%. Of the other varieties mentioned in last year's report only a few "holes" were grown for observation.

64. *Sweet Potatoes*: Work has been continued with the varieties Black Rock, B44, B·52 and V.52; yield records were erratic due to the supply of planting material from the plots. "Scarabee" attack was successfully controlled by monthly sprayings of lead arsenate.

65. *Adlay* (*Croix lachryma—Jobi*). An area of one-third of an acre was reaped early in 1944 and yielded at the rate of 1,450 lb. per acre; the ratoon crop is estimated at 400 lb., or a total of 1,850 lb. per acre. The grain is finding a useful place in the poultry rations of the Station.

66. *Maize*: The crop planted in December, 1942, and reaped in April gave the best results so far obtained, with a yield equivalent to 2,660 lb per acre of corn on cob or 2,128 lb. per acre of shelled grain. Fall Army Worm attack was light and was well controlled by spraying.

67. *Papaw*: The area planted for papain production trials made disappointing growth and received a further set back in the high winds experienced in October. Some trees commenced fruiting and bleeding will start early in 1944. In order to obtain a final perfect stand of 100 female plants it was necessary to plant a total of 514 plants; excluding losses from other causes, the proportion of male plants was some 60 per cent. A plot of the variety "Solo" from Amani made good growth and commenced to fruit during the year.

68. *Sheep grass* (*Brachiaria dictyoneura*) was further extended and some distribution made: its growth has been most encouraging under moist conditions, and it continues to show promise in the dry Northern district where it has been planted in paddocks for sheep grazing trials to be carried out in the future.

69. Other crops grown for observation and multiplication comprised the following:—

Tepary bean: Fair returns were obtained from one planting, but results on the whole have continued to be disappointing.

Soya bean: The variety from the Imperial College of Tropical Agriculture, Trinidad, out-yielded the variety Venezuela Cream; returns generally were fair. An area has been permanently reserved for further trials in the hope that better results will be obtained as the bacterial content of the soil increases; given suitable weather conditions the main factor militating against success would appear to be mole cricket attack.

Cowpeas: This crop has been further extended in view of its importance as a poultry feed on the Station.

Pumpkins: Two new introductions, Large Oval and Boer pumpkin were tried; they are both varieties for stock feeding. Large Oval produced good-sized fruit that stored well, but Boer pumpkin has, so far, given indifferent results.

Squash (Barbados) and *Musk Melon* (Puerto Rico Mildew resistant) yielded well as an intercrop with yams. A new *stringless bean*, Epicure, from Amani, compared favourably with the standard Kentucky Wonder from the U.S.A.

The Citrus Orchards were maintained with the minimum of expenditure in view of the impending Dairy Scheme; yields were poor except for grapefruit.

The Mango Plots were maintained and cropped well.

The Sugar-cane Variety section was maintained in satisfactory condition; 8 new varieties were received and planted, while obsolete varieties were discarded and distribution made to estates on the recommendations of the B.W.I. Central Cane Breeding Station.

70. The silage pits, prepared in 1942, were opened after 6 months. The Guatemala grass gave the best silage, with Uba Cane a poor second: the third pit, containing a mixture of Elephant and Guatemala grass, was spoilt as a result of excessive seepage into the pit. Animals did not take readily to the silage and apart from the bulls, at no time showed any real liking for it; the admixture of a little molasses before feeding appeared to be the main attraction. Doubtless silage would prove an acceptable food to local stock, as elsewhere, if fed regularly.

71. The vegetable section was fully cropped; the multiplication of eschalot planting material was the main feature, a good yield of viable seed being obtained. Useful seed supplies of beans, sweet peppers, egg plant, etc. were also obtained.

72. The Dwarf Coconut plot was maintained during the year. Yields have been satisfactory, with the Green variety giving the most and largest nuts.

73. Yield records were commenced in connection with the $\frac{3}{4}$ acre plot of Cavendish bananas that has been maintained on the station for several years; starting in August, the yield for the 5 months August—December was 242 stems or an average of 48·4 stems per month; on an acreage basis, these figures represent a yield of 64·5 stems, equivalent to 56 "counts", per acre per month.

74. The Lands and Survey Department carried out a boundary survey of the Station in order to define boundaries and check suspected encroachment; the lines have been planted with Casuarinas as permanent marks.

75. A hillside area of approximately $\frac{1}{3}$ acre was planted to *Leucaena glauca* in order to carry out investigations into the growth and yield of the crop in view of its potential importance as a fodder.

Government Stock Farm, Union Station.

76. Additions to the breeding stock of the Station comprised the following:—

Bull: One (1) $\frac{3}{4}$ Holstein/Zebu bull from Trinidad.

Pigs: One (1) Large Black boar from Trinidad.

Poultry: Three (3) Rhode Island Red (Dark strain) pullets and one cock from Barbados, and six (6) pullets bred on the Station.

Rabbits: Two (2) Flemish Giant does from Trinidad, one (1) pair from Barbados.

Goats: One (1) British Alpine X Toggenburg buck and one (1) British Alpine X Saanen doe, both from Barbados.

77. Swine fever quarantine was lifted consequent on the inoculation of the station pigs with Crystal Violet Vaccine; the death of one (1) sow, however, was diagnosed by the Senior Veterinary Officer, Trinidad, as due to Swine Fever as a result of a break in immunity; another sow and the young boar from Trinidad died from indeterminate cause. One (1) sow, considered unsuitable for further breeding, was sold.

78. Seventeen (17) Large Black piglings were weaned during the year; two (2) females were retained for the Farm, one (1) died and the remainder —seven (7) males and seven (7) females—were sold locally; the demand for these piglings is still keen.

79. Rabbit breeding was further extended and six (6) litters were obtained; a programme of breeding for the supply of foundation stock to the schools is now making progress and 1944 should see a good distribution. Fortnightly weight records are proving of great assistance in the culling of unthrifty and otherwise unsuitable stock.

80. A step forward has been made with the introduction of a high grade British Alpine X Toggenburg buck goat from Barbados; it was also possible to obtain a fine British Alpine X Saanen doe of high milking parentage from the same source.

81. The $\frac{3}{4}$ Holstein/Zebu bull "Penco" was purchased from Trinidad early in the year; his services have been well utilised up to the present.

82. Donkey breeding work has continued, and two (2) young half-bred Jack donkeys were sold locally at good prices. One (1) half-bred Jack and two (2) half-bred Jennies born during the year are making good growth.

83. The Guatemala Grass and Uba Cane fodder areas were maintained and the area under Sugar-cane variety B. 34104 was extended to approximately half an acre.

84. Further progress was made in the flock of Rhode Island Red (Dark strain) poultry; additions comprised one (1) cock and three (3) pullets from Barbados and (6) pullets hatched from the best laying hen; six (6) cockerels and one (1) old cock were readily disposed of locally; two (2) of the original hens died during the year. A total of 463 eggs was laid of which 381 were sold for hatching, the remainder being infertile due to the removal of the cock during the moulting season, which extended from July to early September. Maintenance costs worked out at approximately 0.75 pence per bird per day, the cost per egg being 3.94 pence. Breeding work was continued with eggs from selected hens with a view to further increasing the flock during 1944.

85. The return of tours and services is set out below:—

	Station Services.	Tours.	Days on Tour.	Outstation Services.
Stallion Millersdale	49	—	—	—
$\frac{3}{4}$ Holstein-Zebu Bull "Arneaud"	33	1	38	—
do do. "Penco"	19	—	—	—
Sussex Bull	16	1	148	8
Jack Donkey	17	1	18	9
Large Black Boar No. 1 ...	14	—	—	—
Large Black Boar No. 2 ...	—	1	365	7
Large Black Boar No. 3 ...	—	1	288	4
Buck Rabbit	29	1	115	—
Buck Goat	2	—	—	—

Plant Nurseries.

86. The Departmental Nurseries at Barre-de-l'Isle, Rabot and Union were engaged in the propagation of citrus and other economic crops for distribution; the Quilesse Nursery raises seedlings of local and introduced forest trees for annual reafforestation work. Soil conservation measures are demonstrated in each nursery.

87. Small scale trials are being conducted with Sapucaia Nut, *Lecythis Zabucajo*, and Brazil Nut at the Barre-de-l'Isle and Quilesse Nurseries: so far the Brazil Nut shews distinct promise, but conditions appear to be too wet for Sapucaia Nut which will now be tried under drier conditions. Small scale demonstration plots of Vanilla are being established at two (2) nurseries.

88. A new and convenient nursery site has been obtained to serve the South-western districts of the Colony and will ultimately replace the existing nursery at Rabot. Situated at St. Jour, near Victoria, it comprises an area of some 30 acres and will provide ample scope for nursery and plant propagation work as well as other minor experimental and demonstration projects.

Pests and Diseases.

89. During the second half of the year seedling lime trees of varying age were found to be succumbing to what at first appeared to be citrus weevil attack, but was later proved by Mr. Fennah, Entomologist, to be due to "Red-root" complex. The disease is confined to two (2) estates in the northern districts and losses, which are continuing, have been considerable.

90. Sporadic outbreaks of coconut bud rot was promptly dealt with. The small moth borer, *Diatraea canella*, continues to cause some damage to sugar-cane, but no practical control measures are available yet. Rat damage has been fairly prevalent and most crops have suffered; annual loss and damage caused by rats is considerable, even in this small Colony, and certainly justifies united public action, whether in town, village or the country, in the form of regular rat hunts, trapping and, where possible, poisoning.

91. Fortunately no evidence of Pink Bollworm has been found this season (1943/44), undoubtedly due to thorough field sanitation measures and the four (4) months' close season. Cotton Leafworm was active in the young crop, but was effectively controlled by regular sprayings of lead arsenate.

92. In view of the fact that Gros Michel banana cultivation has been virtually abandoned, and there is little doubt that Panama Disease is steadily increasing on this account it was decided, in consultation with the Board of Agriculture and the Banana Association, to discontinue the Panama Disease control work carried on by the Department as from the commencement of 1944.

93. Mr. R. G. Fennah, M.A., A.I.C.T.A., F.R.E.S., continued his investigations as Food Crop Pests Entomologist, Windward and Leeward Islands, and paid several visits to the Colony remaining for varying periods.

Agricultural Extension and Education.

94. The problems confronting the Department in peasant agriculture may, generally speaking, be placed under three heads—

(a) a more permanent system of agriculture linked with soil conservation.

(b) greater diversification of crops.

(c) greater attention to the keeping of livestock.

95. Peasant advisory work received all possible attention, but inadequate field staff is available to provide that continuity of effort essential to achieve results, added to which transport facilities were severely restricted over the greater part of the year. The difficulties associated with district work, particularly in the interior, are perhaps not always appreciated.

96. As recorded elsewhere the Canaries Allotment Scheme continues to operate successfully, but the Rice Allotment Scheme near Vieux-Fort was not fully taken up due, perhaps, to the availability of other limited rice growing land in the district. Other allotment schemes in view have been temporarily abandoned owing to lack of interest or adequate supervision. Some forty-nine (49) ¼ acre plots on the Massade Estate (adjoining the Gros Islet Village) are being gradually leased as residential allotments.

97. During the year 285 mangoes were top-worked or grafted to the Julie variety and thirty-five (35) citrus stocks were grafted or budded to improved orange varieties, on behalf of peasant proprietors and others.

98. The Pupil Teachers' Examination in Agriculture was held in August, and a total of fourteen (14) teachers was examined. The Teachers' Certificate Examination in Nature Study was held in December, and a total of nine (9) teachers was examined. Reports on the results were submitted later to the Education Officer. The annual short course in Agriculture to teachers was held during August; the attendance was fairly good and the field day at the Union Agricultural Station and Babonneau School was a great success.

99. The thirty-fifth annual examination of the Primary Schools in Agriculture was conducted by the Agricultural Officers and a report submitted to the Education Officer. A new marking system for this examination was introduced this year, which covers the various activities more effectively, allows for initiative shown and provides the examiner with greater scope for marking. All the schools but one were examined. Several of the more important schools still lack suitable gardens. Further supplies of tools were obtained and distributed, and it is hoped to obtain the balance of tools for distribution during 1944; the majority of the schools are now fairly well equipped with gardening implements. One (1) goat, two (2) pure-bred Rhode Islands Red cockerels and three (3) Flemish Giant rabbits were distributed as school garden prizes in 1943.

100. Interest continues in the Young Farmers' Club Movement, particularly by the Babonneau School, but also by the Choiseul, Forestiere and one or two other schools; meetings and excursions were arranged periodically, and in a few cases club members have commenced to keep stock. The Department is, for reasons already mentioned, only able to give very limited attention to this Movement. The Babonneau Young Farmers' Club paid two visits to the Union Agricultural Station during the year; on the second visit the children of the agricultural classes also attended.

101. Three agricultural apprentices (1 Senior and 2 Juniors) were in residence at the Union Agricultural Station during the year; the senior apprentice successfully completed his course at the end of the year.

Development and Welfare Schemes.

102. The following schemes under Development and Welfare have been approved so far for this Department:—

(a) D. 13 (a. g.). Tools and Prizes, School Gardens (£50 for Tools and £20 for Prizes). The bulk of the money for tools has been spent, and the tools suitably distributed, although remaining orders are still outstanding. The money allocated for prizes has not been used yet.

(b) D. 91. Morne Giraud Investigation and Demonstration Centre—£3,991. It is hoped to make a start on this scheme next year; meanwhile the survey and purchase of the land and cutting of timber for buildings has been completed.

(c) D. 91 (b). La Fargue Investigation and Demonstration Centre—£4,485. This scheme will not be commenced until the Morne Giraud Centre has been fully launched owing to shortage of staff; meanwhile the survey and purchase of the area is being completed.

(d) D. 92. Agricultural Department Staff—£7,821. Apart from the appointment of two junior officers, the majority of the posts remain unfilled owing to the difficulty of obtaining suitable candidates, but it is hoped to fill most of the appointments next year.

(e) D. 93 (a). Pasture Improvement—£500. A provisional area of 5 acres has been sub-divided into four paddocks and two species of improved grasses are in the process of being established in these paddocks. Sheep are unlikely to be introduced before next year.

(f) D. 93 (b) Grass Nurseries—£250. Only a limited amount of work has been done so far owing to the shortage of staff.

(g) D. 94. Reafforestation—£500. No expenditure has been incurred yet, pending the creation of a forestry division of the Department and the organisation of work by the Assistant Conservator of Forests, Lesser Antilles Division.

(h) 264. Quarters for Farm Manager and labourers, Government Stock Farm, Union—£2,000. The work is in the hands of the Public Works Department and is expected to commence soon; all materials for this purpose are in hand.

(i) D. 264. Farm Manager, Government Stock Farm, Union—£600. A suitable candidate has not been found yet.

Publications, Correspondence & Organisations.

103. A memorandum was prepared on the sugar industry for the British West Indies Sugar Association (Inc.). Land usage and population data were prepared for the Comptroller in connection with proposals for the construction of the Murray Road. In addition the usual annual and monthly returns were furnished.

104. 879 incoming letters, 799 outgoing letters and 227 Minute Papers (involving 385 replies) were dealt with during the year.

105. A large number of bulletins and reports were regularly received from Departments of Agriculture and other Agricultural Institutions in all parts of the world, and these are gratefully acknowledged.

106. The Agricultural Superintendent and Agricultural Assistant attended numerous meetings during the year. Five meetings of the Board of Agriculture, were held. Work in connection with the United States Bases Compensation Committee, of which the Agricultural Superintendent is a member, engaged a considerable amount of time.

Official Visitors.

107. Mr. A. J. Wakefield, C.M.G., Inspector General of Agriculture—1st—8th October.

Mr. J. S. Beard, Assistant Conservator of Forests, Lesser Antilles Division—7th—21st December.

Staff.

108. The Agricultural Superintendent was absent from the Colony on sick leave from 9th May to 6th June, during which period Mr. G. B. Gregory, Agricultural Assistant, was in charge of the Department.

109. Mr. G. B. Gregory, Agricultural Assistant, was absent on twenty-eight (28) days short leave from 30th August to 26th September.

110. Mr. C. M. Alexander, Senior Agricultural Instructor, Castries, was absent on vacation leave from 4th October to the end of the year.

Legislation Affecting Agricultural Industries.

111. New legislation passed during 1943 was as follows :—

Animals Trespass (Amendment) Ordinance, No. 1 of 1943 to permit the killing of any sheep which cannot be seized for the purpose of being impounded.

Excise Duty (Sugar) (Continuance and Amendment) Ordinance, No. 2 of 1943. An Ordinance to continue and further to amend the Excise Duty (Sugar) Ordinance, 1941.

Factories Ordinance—An Ordinance to make provision for the Registration and Supervision of Factories, and the Safety of Workers employed therein (On Proclamation). No. 8 of 1943.

Labour (Amendment) Ordinance, No. 10 of 1943. An Ordinance to amend the Labour Ordinance (31st December, 1943).

Statistics (Land and Agricultural Undertakings) Regulations. Statutory Rules and Orders, 1943, No. 46 (6th November, 1943).

Sugar Control (Quota, Local Consumption) Order. Statutory Rules and Orders, 1943, No. 14, (20th March, 1943).

APPENDIX I.

CHOISEUL VILLAGE EXTENSION SCHEME.

This Scheme, commenced circa 1913, was finally completed during the year, when all outstanding instalments on the remaining holdings were paid.

Stations.	Jan.	Feb.	Mch.	Apl.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total	Maximum in one day and date.		days of rain.
	Ins.	Ins.	Ins.	Ins.	Ins.	Ins.	Ins.	Ins.	Ins.	Ins.	Ins.	Ins.	Ins.	Ins.		
Gros Islet Village ..	5·21	1·58	3·34	1·82	5·42	4·52	5·03	11·64	5·75	9·10	2·78	4·49	60·68	2·74	9th Oct.	204
Cap Estate ...	3·24	1·12	1·91	1·41	3·51	5·49	3·65	12·15	5·24	8·72	2·09	6·13	54·66	2·40	,,	166
Castries, Corinth ...	8·47	4·04	4·31	2·89	5·98	7·35	6·58	13·86	6·15	13·37	3·24	5·90	82·14	2·10	26th Aug.	219
Marquis Estate ...	2·92	1·68	2·10	1·73	6·22	4·64	7·08	17·68	5·71	13·18	3·89	5·76	72·59	2·80	21st Aug.	133
Union Experimental Stn.	6·29	1·69	3·41	2·24	8·13	6·92	5·98	22·29	10·21	14·18	5·50	8·10	94·94	2·31	27th Aug.	278
*Choc Estate ...	5·43	1·52	2·95	1·65	4·49	6·80	4·21	13·37	...	13·11	3·11	5·50	62·14	...	...	...
†George V Park ...	6·75	2·26	4·83	2·48	6·19	8·53	6·78	15·31	7·68	13·43	6·89	7·34	88·47	2·78	25th Aug.	249
Soucis Est., Cul-de-Sac	4·60	·65	5·50	2·87	7·68	9·01	8·00	15·58	5·39	25·48	10·66	8·10	103·52	3·50	4th Oct.	146
Crown Lands Est., ,,	10·67	3·42	5·42	1·92	3·26	1·03	5·05	13·85	7·82	19·70	8·70	11·90	92·14	3·00	9th Oct.	157
Mont D'Or Est., Roseau	4·45	1·70	3·00	3·63	4·45	8·53	9·90	11·45	8·87	19·40	6·49	11·29	93·16	2·90	4th Oct.	214
Belair Estate, ,, ...	5·30	2·77	5·08	2·91	5·43	6·30	4·89	11·30	7·68	12·14	7·13	7·96	78·89	2·00	10th Oct.	258
Vanard ,, ,, ...	5·66	4·29	6·15	6·25	7·00	8·69	10·03	12·57	8·64	20·52	6·18	12·01	107·99	3·50	4th Oct.	217
Roseau ,, ,, ...	5·40	2.81	6·06	2·11	6·28	8·55	4·42	10·48	3·87	10·85	6·15	7·38	74·36	2·30	12th Oct.	221
†Barre de l'Isle Nursery	7·40	3·52	7·26	4·33	10·81	7·89	10·18	15·10	16·05	20·69	9·80	11·48	124·51	...	...	...
Soufrière, La Perle Estate	6·04	3·67	6·98	2·23	10·22	6·25	6·96	11·18	4·56	17·16	7·95	8·89	92·09	2·90	10th Oct.	253
Ruby Estate ...	5·01	2·99	7·15	1·82	8·68	5·50	6·38	12·49	8·16	16·63	8·00	10·00	92·81	3·32	18th Oct.	208
Union Vale ...	2·52	1·66	4·44	2·85	8·16	7·92	4·72	9·94	6·56	15.08	4·72	8·23	76·80	3·60	11th Oct.	192
Beausejour ...	6·96	3·14	6·77	3·51	10·10	7·67	6·55	11·86	7·08	18·15	8·46	10·80	101·05	3·35	,,	312
Belle Plaine ..	7·39	3·75	7·65	3·60	11·09	8·81	7·92	13·95	7·51	18.58	8·51	11·35	110·11	3·33	,,	299
Rabot Estate ...	5·52	2·44	6·76	2·40	10·62	8·53	7·05	13·97	6·34	19·94	7·97	10·78	102·32	4·00	10th Oct.	255
††Rabot Nursery ...	5·13	1·83	6·20	1·78	9·48	7·41	6·74	14·01	5·89	19·24	7·52	10·56	95·79	...	...	280
†Quilesse ,, ...	8·97	5·07	12·08	3·37	11·22	8·91	8·42	15·75	13·09	22·91	14·86	18·79	143·44	3·42	10th Oct.	258
‡Choiseul, Morne Lezard Est.	4·23	2·00	2·89	4·17	7·04	7·95	5·36	10·64	5·88	11·11	4·11	5·76	71·14	...	...	134
Park Estate ...	5·46	2·98	6·69	2·38	8·16	9·80	5·05	13·07	8·10	13·89	8·40	11·61	95·59	2·10	16th Sept.	302
Woodlands Estate ...	7·22	3·96	9·21	3·44	10·08	9·18	6·04	15·54	10·97	17·39	9·23	10·47	112·73	3·48	11th Oct.	285
Londonderry Estate ...	6·12	2·35	8·40	3·24	6·99	8·84	3·36	8·34	7·10	12·07	8·62	7·74	83·17	2·80	12th Nov.	170
Balembouche Estate ...	3·15	2·22	3·49	2·00	5·03	6·59	3·76	8·40	4·64	12·42	4·88	6·50	63·08	3·20	11th Oct.	100
Laborie, Giraud Estate ...	4·55	2·06	3·38	3·85	9·54	11·51	5·29	13·50	8·48	16·95	9·51	8·89	97.51	3·45	,,	183
Vieux-Fort, Moule-à-Chique	2·11	1·17	6·58	2·03	6·45	4·70	6·14	7·77	2.92	8·71	1·84	6·76	57·18	2·50	10th May	119
Beane Field ...	3·78	1·09	2·54	2·34	4·45	5·42	3·52	6·14	4·11	9·75	2·12	5·98	51·24	4·60	11th Oct.	304
Micoud, Troumassée Est.	4·25	1·30	4·54	1·02	2·10	3·20	2·75	7·00	8·20	10·20	5·15	5·10	54·81	4·00	10th Oct.	59
Mamiku Estate ...	2·35	1·68	2·96	2·07	4·49	3·39	3·47	9·37	8·14	11·00	4·58	6·32	59·82	3·23	9th Oct.	238
Fonds Estate ...	2·62	1·80	3·10	2·04	3·94	5·26	3·51	11·33	7·75	10·86	5·07	5·97	63·25	2·62	,,	236
Dennery, Prospect Est. ..	7·32	1·83	4·52	2·64	7·90	5·26	4·92	11·04	9·28	14·55	5·66	11·37	86·29	4·00	,,	239
Border Estate ...	7·44	2·69	4·40	4·00	9·33	6·41	6·99	17·67	7·81	19·98	8·49	12·69	107·90	2·62	,,	287
La Cayé Estate ...	4·45	2·20	3·27	2·45	5·74	3·52	4·93	10·94	6·36	10·40	3·94	6·24	64·44	3·41	18th Oct.	211
Ressource Estate ...	4·79	2·95	5·40	1·86	5·66	4·39	5·33	10·56	5·67	11·69	5·36	7·00	70·66	2·97	9th Oct.	276

* Record not complete. † Departmental. ‡ Record incomplete through overflow of guage on 11th October, 1943.

	Quilesse Nursery.	Beane Field.	Beausejour Estate.
Maxima=	143·44	4·60—11th Oct.	312.

CASA